

Attorney Docket No.: **270/175US (UMD-0060)**  
Inventors: **DiCicco-Bloom et al.**  
Serial No.: **10/044,722**  
Filing Date: **January 11, 2002**  
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This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-45 (canceled).

Claim 46 (new): A method for modulating the growth of a neuronal precursor cell comprising contacting a neuronal precursor cell with at least one ligand for a pituitary adenylate cyclase activating polypeptide (PACAP) receptor, PAC<sub>1</sub>, thereby modulating the growth of the neuronal precursor cell.

Claim 47 (new): A method for promoting proliferation of neuronal precursor cells comprising contacting a neuronal precursor cell with an agent which decreases the expression or amount of PACAP in the cell thereby promoting proliferation of the cell.

Claims 48 (new): A method for treating a medical condition caused by aberrant growth of neuronal precursor cells comprising administering to a patient having a medical condition caused by aberrant growth of neuronal precursor cells a composition comprising at least one ligand for PAC<sub>1</sub> thereby modulating the growth of the neuronal precursor cells and treating the medical condition.

Claim 49 (new): A method for increasing brain tissue comprising administering to a patient in need of treatment a

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PACAP antagonist thereby increasing neuronal precursor cell growth and brain tissue.